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IN THE CLAIMS:

This listing of claims below will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-14. (Canceled)

15. (Currently Amended) A process for producing methanol from a synthesis gas comprising:
 (a) supplying the synthesis gas mixture to ~~the a~~ methanol synthesis reactor system ~~of any one of claims 1 to 12 comprising:~~

(i) a first reactor adapted to be maintained under methanol synthesis conditions having an inlet for supply of synthesis gas and an outlet for recovery of a first methanol-containing stream, said first reactor being charged with a first volume of a methanol synthesis catalyst through which the synthesis gas flows and on which in use, partial conversion of the synthesis gas to a product gas mixture comprising methanol and un-reacted synthesis gas will occur adiabatically, and

(ii) a second reactor adapted to be maintained under methanol synthesis conditions having an inlet for supply of the gaseous first methanol-containing stream which has not been subjected to cooling after being recovered from the outlet of the first reactor, an outlet for recovery of a second methanol-containing stream and indirect cooling means, said second reactor being charged with a second volume of a methanol synthesis catalyst through which the gaseous first methanol-containing stream flows outwardly from the inlet and on which, in use, further conversion of the synthesis gas to a product gas mixture comprising methanol will occur,

wherein, when said first and second reactors are zones in a single reactor, the first catalyst and the second catalyst ^{are separated from each other} ~~do not have a common face.~~

wherein said system is maintained under methanol synthesis conditions;

(b) recovering from the methanol synthesis reactor system a product gas mixture comprising methanol and an un-reacted material of the synthesis gas mixture;

(c) supplying material of the product gas mixture to a methanol recovery zone maintained under methanol recovery conditions; and

SUPPORT for The Amendment, see page 7, lines 19-20.

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(d) recovering from the methanol recovery zone a crude methanol product stream and a vaporous stream comprising un-reacted material of the synthesis gas mixture.

- 2 ~~16~~. (Original) A process according to Claim ~~15~~ additionally including the step of recycling the un-reacted material to the methanol synthesis reactor.
- 3 ~~17~~. (Previously Presented) The process according to Claim ~~15~~ wherein the synthesis gas is formed from a hydrocarbon feedstock in a process comprising contacting a vaporous mixture comprising the feedstock and steam in the steam reforming zone with a catalyst effective for a catalysis of at least one reforming reaction and recovering from the reforming zone a synthesis gas mixture comprising carbon oxide, hydrogen and methane.
- 4 ~~18~~. (Previously Presented) The process according to claim ~~15~~ wherein the synthesis gas is compressed before being supplied to the methanol synthesis reactor system.
- 5 ~~19~~. (Previously Presented) The process according to claim ~~15~~ wherein the pressure of the gaseous reactants entering the first reactor zone are in the region of 20 bar to 200 bar.
- 6 ~~20~~. (Previously Presented) The process according to claim ~~15~~ in which the motive force of gas compression is provided by high pressure steam generated within the plant by a steam turbine.
- 8 ~~21~~. (Previously Presented) The process according to claim ~~15~~ in which the motive force for gas compression is wholly or in part provided by the cooling system in the second reactor zone.
- 8 ~~22~~. (Previously Presented) The process according to claim ~~15~~ wherein the temperature of the gaseous reactants entering the first reactor zone are in the region of 180°C to 220°C.